Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-referenced application. In accordance with 37 C.F.R. 1.121, as revised June 30, 2003, claims are labeled as "Original", "Currently amended", "Canceled", "Withdrawn", "Previously presented", "New", or "Not entered".

1. **(Currently Amended)** A method of preparing a vector, the method comprising steps of:

providing at least two collections of nucleic acid molecules that are vector fragments, wherein each of the collections comprises at least two alternative vector fragments to be included in the vector, and wherein;

i. vector fragments within the first collection each comprise at least a first portion of a first vector element and a first portion of a second vector element, which first portion of the second vector element cannot alone provide a second vector element function; and

ii. vector fragments within the second collection each comprise a second portion of the second vector element, which second portion of the second vector element also cannot alone provide the second vector element function,

the first and second portions of the second vector element being selected, and the vector fragments being designed such that, when a vector fragment from the first collection is ligated with a vector fragment from the second collection, the second vector element function is reconstituted, wherein the second vector element is an element selected from the group consisting of: a replication element ~~replication elements~~, a vector detection element ~~vector detection elements~~, an expression element ~~expression elements~~, a gene fusion element ~~gene fusion elements~~, a protein fusion element ~~protein fusion elements~~, a polylinker element ~~polylinker elements~~, and combinations thereof;

wherein the vector detection element comprises a selectable marker, a detectable marker comprising a gene encoding a protein that produces a detectable product, or both; and

admixing at least one vector fragment from each collection with one another under linkage conditions so that a hybrid molecule in which each of the fragments is linked together is produced.

2. **(Previously Presented)** The method of claim 1 wherein:

the vector fragments in the first collection each contain at least a first overhang, and wherein the vector fragments in the second collection each contain at least a second overhang, the first overhang being complementary to the second overhang.

3. **(Previously Presented)** The method of claim 1 wherein:

the vector fragments comprise RNA or can be transcribed into RNA, and wherein each such RNA molecule contains at least one splicing recognition site such that each such RNA molecule is able to trans-splice with a compatible splicing recognition site on at least one other such RNA molecule, and

the step of admixing comprises admixing under trans-splicing conditions.

4. **(Original)** The method of any one of claims 1-3, further comprising a step of:

introducing the hybrid molecule into a cell.

5. **(Currently Amended)** The method of claim 1 wherein each alternative vector fragment in each of the collections contains at least a portion of a vector element selected from the group consisting of: a replication element ~~replication elements~~, a vector detection element ~~vector detection elements~~, an expression element ~~expression elements~~, a gene fusion element ~~gene fusion elements~~, a protein fusion element ~~protein fusion elements~~, a polylinker element ~~polylinker elements~~, and combinations thereof;

wherein the vector detection element comprises a selectable marker, a detectable marker comprising a gene encoding a protein that produces a detectable product, or both.

6-11. **Canceled**

12. **(Previously Presented)** The method of claim 1 wherein the step of admixing further comprises admixing at least one isolated nucleic acid molecule containing insert sequence.

13. **(Previously Presented)** The method of claim 3 wherein:

the vector fragments further contain catalytic intron sequences that direct the trans-splicing event.

14. **(Previously Presented)** The method of claim 1 wherein:

the step of admixing comprises admixing under ligation conditions.

15. **(Previously Presented)** The method of claim 1, wherein at least one of the vector fragments contains a vector element or portion of a vector element, which element comprises a selectable genetic unit.

16. **(Previously Presented)** The method of claim 1, wherein at least one of the vector fragments contains a vector element or portion of a vector element, which element comprises a detectable genetic unit.

17. **(Previously Presented)** The method of claim 1, wherein a single vector fragment from each of the collections is selected prior to the step of admixing; and wherein

the step of admixing comprises admixing the selected vector fragments with one another under linkage conditions so that a hybrid molecule in which each of the selected vector fragments is linked together is produced.

18. **(Previously Presented)** The method of claim 17 wherein the step of admixing further comprises admixing at least one isolated nucleic acid molecule containing insert sequence.

19. **(Previously Presented)** The method of claim 1, wherein the first portion of the first vector element provides a first vector element function.

20. **(Previously Presented)** The method of claim 1, wherein the first portion of the first vector element cannot alone provide a first vector element function.

21. **(Previously Presented)** The method of claim 1, wherein the first portion of the first vector element comprises the entire first vector element.